UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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	Application No.	Applicant(s)
Office Action Summary	10/580,677	VERMOLA ET AL.
	Examiner	Art Unit	
	STEVEN KELLEY	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *3-08-07*.
2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>18-49</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>18-49</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>05/26/06</u>.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

2.   Claims 33 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. There is no antecedent basis for "the data receiving

device" recited in claim 33.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

4.   Claims 18 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by

U.S. Patent 7,031,746 to Na et al. (hereinafter "Na").

Regarding claim 18, Na teaches a method of receiving data comprising: receiving

data from a broadcast network; processing the received data; outputting the processed

data (see the description of Fig. 1 in columns 4-5, which teach "receiving", "processing"

and "outputting" digital media broadcast (DMB) data, as recited); and in response to an

interruption, proceeding in a first resource saving mode by continuing to receive data

from the broadcast network but not processing and not outputting said received data

(see steps 411, 419, 425 and 427 in Fig. 4, which teach that during a broadcast

session, if an incoming call is received (and TV off mode has been previously selected)

the broadcast data is received but not processed while the incoming call is connected,

see column 7, line 67, to column 8, line 3, which teaches "It can be further contemplated

that the DMB signal is received but the controller 113 controls the DEMUX 117 or the

decoder 119 not to process the received DMB signal".).

Regarding claim 33, Na teaches a data receiving device comprising: a receiver

arranged to receive data from a broadcast network (receiver 115 in Fig. 1); a processor

arranged to process the received data (video processor 121 in Fig. 1); and output

means configured to output processed data (display 123 in Fig. 1); the data receiving

device being arranged to operate in a first resource saving mode in which the receiver

remains active but received data is not processed by the processor and not outputted

by the output means (see steps 411, 419, 425 and 427 in Fig. 4, which teach that

during a broadcast session, if an incoming call is received (and TV off mode has been

previously selected) the broadcast data is received but not processed while the

incoming call is connected, see column 7, line 67 to column 8 line 3, which teaches "It

can be further contemplated that the DMB signal is received but the controller 113

controls the DEMUX 117 or the decoder 119 not to process the received DMB signal".).

5.   Claims 18, 20, 27, 29-33, 35, 41-42 and 44-49 are rejected under 35 U.S.C.

102(e) as being anticipated by U.S. Patent 7,065,333 to Engstrom (hereinafter

"Engstrom").

Regarding claim 18, Engstrom teaches a method of receiving data comprising:

receiving data from a broadcast network; processing the received data; outputting the

processed data (see the Summary of Invention section and the description of Fig. 4 in

column 8, which teaches the structures for receiving (tuners 452 and 453), processing

(audio interface 454) and outputting broadcast data (speaker (not shown) as described

in column 8, lines 26-27); and in response to an interruption, proceeding in a first

resource saving mode by continuing to receive data from the broadcast network but not

processing and not outputting said received data (see steps 802-806 in Fig. 8, which

teach that when the mobile terminal receives an incoming call while receiving a

broadcast, the broadcast may be interrupted and the broadcast data may be stored for

later playback. As the broadcast is "interrupted", the stored broadcast audio and/or

video data is not processed and is not output, as recited).

Regarding claim 20, which recites "wherein, when in said first resource saving mode, received data is stored", see step 806 in Fig. 8.

Regarding claim 27, which recites "wherein the interruption is an activation of an application unrelated to reception of data from the broadcast network", see step 802 in Fig. 8, where the incoming phone call is an "unrelated application", as recited.

Regarding claim 29, which recites "comprising displaying a list of services provided over the broadcast network", see the description of Fig. 5 in column 8, which teaches that "Application 524 may store broadcast information, such as schedules, locally in data store 522", where the schedule (recited list of services) may be displayed on display 456, and see also column 9, lines 35-54, which teach notification of user preference broadcast information.

Regarding claim 30, which recites "comprising updating said list of services and displaying an updated list", it is conventional and inherent that broadcast "schedules" are updated, as recited.

Regarding claim 31, which recites "wherein the step of outputting comprises at least one of: displaying visually displayable data; and outputting audio data", see the description of Fig. 4 in column 8, which includes audio interface 454, speaker and display 456 for performing the recited outputting.

Regarding claim 32, which recites "A computer program comprising instructions that, when run on processing means within a data receiving device, causes said data receiving device to perform a method according to claim 19", see Fig. 4 which includes a CPU 412 and memories 420, 430 and 434 for storing instructions as recited.

Regarding claim 33, Engstrom teaches a data receiving device (mobile terminal 400) comprising: a receiver arranged to receive data from a broadcast network (tuner (1) and tuner (2), 452 and 453 in Fig. 4); a processor arranged to process the received data (audio interface 454 in Fig. 4); and output means configured to output processed data (speaker (not shown) described in column 8, lines 27-28); the data receiving device being arranged to operate in a first resource saving mode in which the receiver remains active but received data is not processed by the processor and not outputted by the output means (see steps 802-806 in Fig. 8, which teach that when the mobile terminal receives an incoming call while receiving a broadcast, the broadcast may be interrupted and the broadcast data is stored for later playback. As the broadcast is "interrupted", the stored broadcast audio and/or video data is not processed and is not output, as recited.).

Regarding claim 35, which recites "wherein, in said first resource saving mode, the received data is stored", see step 806 in Fig. 8.

Regarding claim 41, which recites "configured to operate in said first resource saving mode following an interruption", see steps 802 and 804, where the incoming call is the "interruption" as recited.

Regarding claim 42, which recites "wherein the interruption is an activation of an application unrelated to reception of data from the broadcast network", see step 802 in Fig. 8, where the incoming phone call is an "unrelated application", as recited.

Regarding claim 44, which recites "further comprising a telephone transceiver arranged to transmit and receive data via a telecommunications network", mobile terminal 400 is a "telephone transceiver arranged to transmit and receive data via a telecommunications network", as recited.

Regarding claim 45, which recites "comprising a media guide application to selectively access services provided over broadcast network", see the description of Fig. 5 in column 8, which teaches that "Application 524 may store broadcast information, such as schedules, locally in data store 522", where a "broadcast schedule" may be interpreted to be a "media guide" as recited.

Regarding claim 46, which recites "wherein the media guide application is configured to display and update a list of available services on a user interface of the receiving device", it is conventional and inherent that broadcast "schedules" (recited media guide) are updated as recited and may be displayed on display 456.

Regarding claim 47, which recites "wherein the output means comprises at least one of: a display for outputting visually displayable data; and audio output means", see the description of Fig. 4 in column 8, which includes audio interface 454, speaker and display 456, as recited.

Regarding claim 48, which recites "A communication system comprising: a broadcast network; and one or more receiving devices according to claim 33", see Figs. 1-2, which show a broadcast network and one or more receiving devices as recited.

Regarding claim 49, which recites "A communication system according to claim 48, comprising: a bi-directional telecommunications network; wherein at least one of the

one or more receiving devices comprises a telephone transceiver arranged to transmit

and receive data via said telecommunications network", see mobile devices 400, which

are "arranged to transmit and receive data via said telecommunications network", as

recited.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 19, 22-23, 34 and 37 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Engstrom in view of Na.

       Regarding claims 19 and 34, which recite "wherein, when in said first resource

saving mode, received data is discarded", Engstrom does not explicitly teach this

feature.

       In an analogous art, Na teaches a device which allows multiple settings for

processing data when an interruption occurs. Na teaches in column 7, line 53 to

column 8, line 3, a number of user settings (such as "TV off" mode or "audio off" mode)

which allow reception of data with variations relating to whether or not to process (or

discard) the received data. For example, if "TV off" mode has been selected, only the

voice call is processed and "the controller 113 discontinues reception of the DMB

signal," (which reads on the recited "received data is discarded") or if "audio off" mode

has been selected only the audio signal portion of the DMB signal is discarded.

Therefore, as Na teaches the conventionality of selecting various processing

(discarding) modes, it would have been obvious to one of ordinary skill to modify

Engstrom to discard unwanted data, if desired by a user.

Regarding claims 22 and 37, which recite "comprising, after operating in said first

resource saving mode for a first predetermined time period, proceeding in a second

resource saving mode in which no data is received from the broadcast network", if the

time period (duration) of a received DMB session in Engstrom is the recited "first

predetermined time period", the process described in Engstrom operates as recited, as

the "first resource saving mode" operates while the program is being broadcast, and

once the broadcast is over, Engstrom "proceeds in a second resource saving mode in

which no data is received from the broadcast network," as recited. Regarding the

language in claim 37 which recites a "second resource saving mode in which the

receiver is deactivated and the processor and output means remain operational", as

described above, once a DMB broadcast session is finished, it would be inherent and/or

obvious to turn the receiver of Engstrom off and leave processor and output means

operational for other purposes (such as calls), as is conventional.

Regarding claim 23, which recites "wherein the step of receiving data from the

broadcast network comprises filtering the received data in order to discard unwanted

data", see Fig. 6 as described in column 9 of Engstrom, which teaches that the tuners

452 and 453 "scan for user preference broadcasts" where the user preferences

"comprise filtering the received data" as a user preference broadcast interrupts another

broadcast, in order to discard unwanted (non-user preference broadcasts) data, as

recited.

8.   Claims 21 and 36 rejected under 35 U.S.C. 103(a) as being unpatentable over

Engstrom as applied to claims 20 and 35 above in view of U.S. Patent Pub.

2001/0029196 to Wakamatsu (hereinafter "Wakamatsu").

Regarding claims 21 and 36, which recite "comprising, in the first resource saving

mode, discarding data received following the expiry of a predetermined time limit",

Engstrom does not explicitly teach this feature.

In an analogous art, Wakamatsu teaches a mobile phone which monitors battery

voltage to determine what functions to enable on the mobile phone. As shown in Figs.

4-5, if insufficient battery resources are available, music capabilities may be stopped

while a phone call is received by the mobile phone. Additionally, Fig. 6 of Wakamatsu

shows a graph of battery voltage and time relating to the operation of functions within

the mobile terminal. Wakamatsu also teaches in section [0034] that the mobile phone

may include "television functions" and "operation of these functions is similarly

restricted". Therefore, as Wakamatsu teaches the conventionality of switching modes

of operation due to power and time constraints, it would have been obvious to modify

Engstrom to "delete or discard stored TV data after a predetermined time period" as recited, in order to conserve battery resources on the mobile device, as is conventional.

9.   Claims 24-26, 28, 38-40 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engstrom and Na as applied to claims 19, 22-24, 34, 37-38 above, and further in view of Wakamatsu.

Regarding claims 28 and 43, which recite "which proceeds in said first resource saving mode in response to a determination that insufficient resources are available for handling reception of data and the unrelated application", Engstrom and Na do not explicitly teach this feature.

In an analogous art, Wakamatsu teaches a mobile phone which monitors battery voltage to determine what functions to enable on the mobile phone. As shown in Figs. 4-5, if insufficient battery resources are available, music capabilities may be stopped while a phone call is received by the mobile phone. Wakamatsu also teaches in section [0034] that the mobile phone may include "television functions" and "operation of these functions is similarly restricted". Therefore, as Wakamatsu teaches the conventionality of switching modes of operation due to battery resources, it would have been obvious to modify the Engstrom/Na combination to "proceed in a first resource saving mode in response to a determination that insufficient resources are available" as recited, in order to handle a call on the mobile device.

Regarding claim 24, which recites "wherein, after operating in said second resource saving mode for a second predetermined time period, removing a filter arranged to perform said filtering step", although Engstrom teaches using filters, Engstrom and Na do not explicitly teach this feature.

As Wakamatsu teaches the conventionality of restricting or ending functions on a mobile device due to power constraints and time constraints (shown in the graph in Fig. 6 of battery voltage and time relating to the operation of functions within the mobile terminal), it would have been obvious to one of ordinary skill to modify the Engstrom/Na combination to "remove a filter after a time period has expired", in order to stop scanning for additional (user preference broadcasts) and conserve battery power on a mobile device, as is conventional.

Regarding claim 38, which recites the subject matter of claims 23 and 24, see the rejection of claims 23 and 24.

Regarding claims 25 and 39, which recite "wherein, after operating in said second resource saving mode for a third predetermined time period, an IP session arranged to handle the output data is closed", Engstrom teaches using IP protocols (see columns 3 and 5-6) for broadcast sessions, however, Engstrom and Na do not explicitly teach this feature.

As Wakamatsu teaches the conventionality of restricting or ending functions on a mobile device due to power and time constraints, it would have been obvious to one of ordinary skill to modify the Engstrom/Na combination to "close an IP session

arranged to handle the broadcast after a time period has expired", in order to conserve

battery power on a mobile device, as is conventional.

Regarding claims 26 and 40, which recites "wherein, after operating in said

second resource saving mode for a fourth predetermined time period, an application for

outputting the processed data is deactivated", Engstrom and Na do not explicitly teach

this feature.

As Wakamatsu teaches the conventionality of restricting or ending functions on a

mobile device due to power and time constraints, it would have been obvious to one of

ordinary skill to modify the Engstrom/Na combination to "deactivate an application, such

as a display, after a time period has expired", in order to conserve battery power on a

mobile device, as is conventional.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Steven Kelley whose telephone number is (571) 272-

5652. The examiner can normally be reached on Monday-Friday, 9AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Status information for unpublished applications is available through Private PAIR only.

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SSK/

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617